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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-----------------------|---------------------|------------------|
| 10/535,686      | 05/19/2005  | Georg Rudiger Kotzian | 70177               | 7933             |

26748 7590 10/31/2007  
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| EXAMINER |
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SULLIVAN, DANIELLE D

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| ART UNIT | PAPER NUMBER |
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4133

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| MAIL DATE | DELIVERY MODE |
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10/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/535,686

Applicant(s)

KOTZIAN, GEORG RUDIGER

Examiner

Danielle Sullivan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 05/19/2005 and 06/17/2005.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is recommended, "Pyribenzoxim Herbicidal Compositions".

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Markush group of claims 1, 4 and 5 are recited incorrectly. All dependent claims are rejected as being based on a rejected independent claim. A Markush-type claim should recite alternatives in a format such as "selected from the group consisting of A, B and C". The members of the Markush group must belong to a recognized physical or chemical class. See MPEP § 803.02.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Mukaida et al. (US 2001/0039245).

Applicant claims a composition comprising customary inert formulation adjuvants and as an active ingredient a mixture of pyribenzoxim and a synergistically effective amount of a compound selected from benzobicyclon, benzofenap....etc. Applicant also claims a method of using the composition on a crop plant, preferably rice, for the control of undesired plant growth.

Mukaida et al. disclose a composition comprising alkoxydimethylphosphoryloxybenzoic acid derivatives pyribenzoxim or bispyribac with a partner herbicide ([0001] and [0019]). The partner herbicide are preferably chosen from sulfonylureas, anilides, etc., and preferably include benzofenap ([0020] and [0037]). The compositions are preferably dispersed in one or more compatible agriculturally-acceptable diluents or carriers ([0053]). The compositions are applied to the area (locus) used for the growing of a crop, preferably where the crop is rice ([0047]).

Claims 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hewett et al. (GB 2334887).

Applicant claims a composition comprising customary inert formulation adjuvants and as an active ingredient a mixture of pyribenzoxim and a synergistically effective amount of a compound selected from S-metolachlor, alachlor... clodinafop, fenoxaprop, etc. and a herbicide antagonist preferably selected from benoxacor, fenclorim, dichlormid and mefenpyr-diethyl. Applicant also claims a method of using the

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composition on a crop plant, preferably rice, for the control of undesired plant growth.

Hewett et al. disclose an herbicidal composition comprising pyribenzoxim with antidotal or safener compounds in association with an agriculturally acceptable diluent or carrier (page 1, lines 3 and 4; page 2, line 6). The examples of antidotes suitable include benoxachor and dichlormid (page 5, lines 19 and 27). The composition may further include herbicides, fungicides, insecticides and plant growth regulators, preferably fenoxaprop and clodinafop (page 7, lines 8-12). The compositions are applied to the locus of the crop plant and the crops that may be protected by the method of the inventions include cereal crops (rice) (page 7, lines 16-20).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukaida et al. (US 2001/0039245) in view of Davies et al. (Herbicide Safeners, 1999).

### **Applicant's Invention**

Applicant claims a composition comprising pyribenzoxim and a synergistically an herbicidally effective amount of various herbicides, such as trifloxysulfuron and/or safeners, such as mefenpyr-diethyl and fenclorim with customary inert formulation adjuvants. Applicant also claims a method of using the composition on rice.

**Determination of the scope and the content of the prior art****(MPEP 2141.01)**

Mukaida et al. teach a composition comprising pyribenzoxim and a partner herbicide in an herbicidally effective amount in association with an agriculturally acceptable diluent or carrier ([0001] and [0019]). The preferred partner herbicides are chosen from sulfonylureas, anilides, 2,6-dinitroanilines, carfentrazone, aryloxyphenoxy propionic acids, oxadiazole, pyrimidyl salicylate, sulfamoylureas, thiocarbamates, hydroxybenzonitriles and pyrazoles ([0020]). Mukaida et al. teaches a method of using the compositions to the area (locus) used for the growing of a crop, preferably where the crop is rice ([0047]).

Davies et al. teach the use of safeners fencloirim and mefenpyr-diethyl (page 1044, Table 1). Davies et al. teach that use of the safener fencloirim on rice crops with the herbicide pretilachlor sprayed as a mixture and the use of mefenpyr-diethyl on wheat, rye, triticale and barley. Davies also teach that safener activity is now widely used against sulfonylurea, imidazolinone, cyclohexanedione and isoxazolidinone herbicides (page 1043, column 2 thru page 1044, column 2).

**Ascertainment of the difference between the prior art and the claims****(MPEP 2141.02)**

Mukaida et al. does not teach the use of safeners, particularly fencloirim and mefenpyr-diethyl, with the composition. Also, Mukaida et al. do not specifically teach that the partner herbicide may be any herbicide known in the art.

**Finding of prima facie obviousness**

### **Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mukaida et al. and Davies et al. to further include safeners. One would have been motivated to include safeners because they are commonly incorporated into herbicidal compositions to decrease the effect of resistance. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Mukaida et al. and Davies et al. to further include any herbicide known in the art. One would have been motivated to include any herbicide because the need for new mixtures of herbicidal compositions is necessary as resistance develop in various cereal crops due to commonly used herbicides. Further, since all of the components have been used individually in the art for the same purpose, to be used as herbicides, it is therefore obvious to use them in the same composition.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Koo et al. (Biological Activity of the New Herbicide LGC-40863, 1997).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danielle Sullivan whose telephone number is (571) 270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Stucker can be reached on (571) 272-0911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Danielle Sullivan  
Patent Examiner



JEFFREY STUCKER  
SUPERVISORY PATENT EXAMINER